

Name: _____

Date: _____

FOIL when $A \neq 1$ solution (version 6)

FOIL the expressions shown below:

1. $(7x + 6)(-5x + 3)$

$$\begin{aligned} & (7)(-5)x^2 + (7)(3)x + (6)(-5)x + (6)(3) \\ & (-35)x^2 + (21)x + (-30)x + (18) \\ & -35x^2 - 9x + 18 \end{aligned}$$

2. $(3x + 7)(-8x - 8)$

$$\begin{aligned} & (3)(-8)x^2 + (3)(-8)x + (7)(-8)x + (7)(-8) \\ & (-24)x^2 + (-24)x + (-56)x + (-56) \\ & -24x^2 - 80x - 56 \end{aligned}$$

3. $(-9x - 4)(8x - 9)$

$$\begin{aligned} & (-9)(8)x^2 + (-9)(-9)x + (-4)(8)x + (-4)(-9) \\ & (-72)x^2 + (81)x + (-32)x + (36) \\ & -72x^2 + 49x + 36 \end{aligned}$$

4. $(9x - 8)(9x - 6)$

$$\begin{aligned} & (9)(9)x^2 + (9)(-6)x + (-8)(9)x + (-8)(-6) \\ & (81)x^2 + (-54)x + (-72)x + (48) \\ & 81x^2 - 126x + 48 \end{aligned}$$

5. $(5x + 3)(6x + 7)$

$$\begin{aligned} & (5)(6)x^2 + (5)(7)x + (3)(6)x + (3)(7) \\ & (30)x^2 + (35)x + (18)x + (21) \\ & 30x^2 + 53x + 21 \end{aligned}$$

FOIL the expressions shown below:

6. $(-9x + 6)(-7x + 7)$

$$\begin{aligned} &(-9)(-7)x^2 + (-9)(7)x + (6)(-7)x + (6)(7) \\ &(63)x^2 + (-63)x + (-42)x + (42) \\ &63x^2 - 105x + 42 \end{aligned}$$

7. $(8x + 7)(6x + 7)$

$$\begin{aligned} &(8)(6)x^2 + (8)(7)x + (7)(6)x + (7)(7) \\ &(48)x^2 + (56)x + (42)x + (49) \\ &48x^2 + 98x + 49 \end{aligned}$$

8. $(-8x + 5)(9x - 8)$

$$\begin{aligned} &(-8)(9)x^2 + (-8)(-8)x + (5)(9)x + (5)(-8) \\ &(-72)x^2 + (64)x + (45)x + (-40) \\ &-72x^2 + 109x - 40 \end{aligned}$$

9. $(-3x + 3)(8x - 6)$

$$\begin{aligned} &(-3)(8)x^2 + (-3)(-6)x + (3)(8)x + (3)(-6) \\ &(-24)x^2 + (18)x + (24)x + (-18) \\ &-24x^2 + 42x - 18 \end{aligned}$$

10. $(6x + 9)(-4x + 9)$

$$\begin{aligned} &(6)(-4)x^2 + (6)(9)x + (9)(-4)x + (9)(9) \\ &(-24)x^2 + (54)x + (-36)x + (81) \\ &-24x^2 + 18x + 81 \end{aligned}$$